STATE OF NEW JERSEY      )

                               )

COUNTY OF BURLINGTON    )
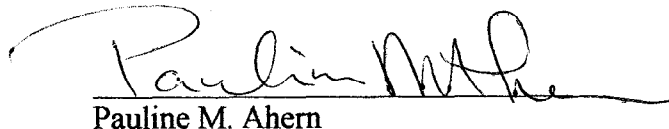
## AFFIDAVIT

       I, Pauline M. Ahern, first being duly sworn upon oath depose and say that I am employed by AUS Consultants – Utility Services, as Vice President; that I have read the attached and foregoing Direct Testimony of Pauline M. Ahern in Docket Nos. 00-0337, 00-0338 and 00-0339 (consolidated), which is identified as CIWC Exhibit 7.0, as well as Schedules 1 through 17, which are attached thereto; that these documents were prepared by me or under my supervision and I know the contents thereof; that said contents are true in substance and in fact; and that CIWC Exhibits 7.0 and Schedules 1 through 17 are the testimony and exhibits I wish to give in this proceeding.

       Further affiant sayeth not.

                               _____

                               Pauline M. Ahern

Subscribed and Sworn
to before me this
10th day of November, 2000.

_____
Notary Public

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CONSUMERS ILLINOIS WATER COMPANY

DOCKET NO.

DIRECT TESTIMONY

OF

PAULINE M. AHERN, VICE PRESIDENT
AUS CONSULTANTS - UTILITY SERVICES

CONCERNING

COMMON EQUITY COST RATE

APRIL 2000

## TABLE OF CONTENTS

Appendix A to the Direct Testimony of Pauline M. Ahern

# I. INTRODUCTION

1

2   Q.   Please state your name, occupation and business address.

3

4   A.   My name is Pauline M. Ahern and I am a Vice President of AUS Consultants - Utility Services.  My

5        business address is 155 Gaither Drive, P.O. Box 1050, Moorestown, New Jersey 08057.

6

7   Q.   Please summarize your educational background and professional experience.

8

9   A.   I am a graduate of Clark University, Worcester, MA, where I received a Bachelor of Arts degree

10       with honors in Economics in 1973. In 1991, I received a Master of Business Administration with

11       high honors from Rutgers University.

12            In June 1988, I joined AUS Consultants - Utility Services as a Financial Analyst.  I am

3        responsible for the preparation of all fair rate of return and capital structure exhibits for the

14       principals of AUS Consultants - Utility Services, including myself.  I am also responsible for the

15       preparation of interrogatory responses; preparation of interrogatories directed to other witnesses,

16       the preparation of cross-examination of and testimony in rebuttal to those witnesses, as well as for

17       assisting clients' attorneys in the post-hearing process.  I have appeared on behalf of investor-

18       owned companies before numerous state regulatory commissions.   The details of these

19       appearances, as well as details of my educational background, are shown in Appendix A

20       supplementing this testimony.

21            I am also the Publisher of C. A. Turner Utility Reports, responsible for the production,

22       publication, distribution and marketing of these reports.  C. A. Turner Utility Reports provides

23       financial data and related ratios covering approximately 150 public utility companies on a monthly,

24       quarterly, and annual basis including electric, combination gas and electric, gas distribution, gas

25       transmission, telephone, water and international utilities to about 1,000 subscribers, which include

26       utilities, state utility commissions, federal agencies, individuals, brokerage firms, attorneys and

1    public and collegiate libraries.

2          I also calculate and maintain the A.G.A. Index under contract with the American Gas

3    Association (A.G.A.). The A.G.A. Index is a market capitalization weighted index of the common

4    stocks of about 100 corporate members of the A.G.A.

5          I have co-authored an article with Frank J. Hanley, President, AUS Consultants - Utility

6    Services entitled "Comparable Earnings: New Life for an Old Precept" which was published in the

7    American Gas Association's Financial Quarterly Review, Summer 1994. I also assisted in the

8    preparation of an article authored by Frank J. Hanley and A. Gerald Harris entitled "Does

9    Diversification Increase the Cost of Equity Capital?" published in the July 15, 1991 issue of Public

10   Utilities Fortnightly.

11         I am a member of the Society of Utility and Regulatory Financial Analysts, formerly the

12   National Society of Rate of Return Analysts. In 1992, I was awarded the professional designation

13   "Certified Rate of Return Analyst" (CRRA) by the National Society of Rate of Return Analysts.

14   This designation is based upon education, experience and the successful completion of a

15   comprehensive written examination.

16         I am an associate member of the National Association of Water Companies and a

17   member of the Pennsylvania Gas Association.

18

19   Q.   What is the purpose of your testimony?

20

21   A.   The purpose is to provide testimony on behalf of Consumers Illinois Water Company (Consumers

22        IL or the Company) in the form of a study of the common equity cost rate which it should be

23        afforded the opportunity to earn on the common equity portion of its jurisdictional rate bases for its

24        Kankakee, Vermilion, and Woodhaven divisions.

25

26   Q.   What is your recommended common equity cost rate?

2

2  A.  Although the Company is basing its filing upon a requested common equity cost rate of 11.00%,

3  capital market conditions indicate that a common equity cost rate of 11.85% is applicable to a

4  50.85% average common equity ratio estimated for the year ending December 31, 2001. The

5  capital structure and the embedded cost rates of long- and short-term debt are supported by

6  Company Witness Francis X. Simpson.

7

8  Q.  Have you prepared an exhibit which supports your recommended common equity cost rate?

9

10  A.  Yes, I have. It has been marked for identification as Exhibit No. 7 and consists of 17 schedules.

11

12  ## II. SUMMARY

`3  Q.  Please summarize the overall cost of capital and fair rate of return.

14

15  A.  The overall cost of capital of 10.165% is based upon average Company capital structure and

16  related ratios and fixed capital cost rates estimated for the year ended December 31, 2001 which

17  are summarized on Schedule 1, page 1 of Exhibit No. 7. The basis of the 11.85% common equity

18  cost rate recommendation is summarized on Schedule 1, page 2 of Exhibit No. 7.

### Table 1

|  | Capital Structure Ratios | Cost Rate | Weighted Return |
|---|---|---|---|
| Long-term debt | 45.71% | 8.59% | 3.925% |
| Short-term debt | 2.96 | 7.24 | 0.214 |
| Preferred stock | 0.49 | 5.52 | 0.027 |
| Common equity | 50.85 | 11.85 | 6.026 |
| Total | 100.00% |  | 10.165% |

,3  As explained in more detail below, my recommendation reflects current capital market

3

1    conditions and results from the application of four well-tested market-based cost of common

2    equity models, the Discounted Cash Flow (DCF) approach, the Risk Premium Model (RPM), the

3    Capital Asset Pricing Model (CAPM), and the Comparable Earnings Model (CEM).

4

5    Q.    Please summarize your recommended common equity cost rate of 11.85%.

6

7    A.    I assessed the market-based cost rates of similar risk companies, i.e., a proxy groups, for insight

8          into a recommended common equity cost rate applicable to the Company and suitable for cost of

9          capital purposes. Because the Company's common stock is not publicly traded, market-based

10         common equity cost rates cannot be determined directly for the Company. Consequently, it is

11         appropriate to look to proxy groups of similar risk companies whose common stocks are actively

12         traded for insight into an appropriate common equity cost rate applicable to the Company. Using

·3         other utilities of comparable risk as proxies is consistent with the principles of fair rate of return

14         established in the Hope[1] and Bluefield[2] cases and adds reliability to the informed expert judgment

15         used in arriving at a recommendation of the common equity cost rate. Therefore, I have evaluated

16         the market data of a proxy group of water companies and a proxy group of utility companies in

17         arriving at my recommended common equity cost rate.    The bases of selection are described

18         below.

19               As previously stated, in formulating my recommended common equity cost rate of

20         11.85%, I reviewed the results of the application of four different cost of common equity models,

21         namely, the DCF, RPM, the CAPM, and CEM for each proxy group. I used all four common equity

22         models as primary tools in arriving at my recommended common equity cost rate because no

23         single model is so inherently precise that it can be relied upon solely, to the exclusion of other

24         theoretically sound models. All four models are based upon the Efficient Market Hypothesis

---

[1]    Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591 (1944).

[2]    Bluefield Water Works Improvement Co. v. Public Serv. Comm'n, 262 U.S. 679 (1922).

1  (EMH), and therefore, have application problems associated with them. The EMH, as will be

2  discussed below, requires the assumption that investors rely upon multiple cost of common equity

3  models. Moreover, the prudence of using multiple cost of common equity models is supported in

4  the financial literature. Therefore, none should be relied upon exclusively to estimate investors'

5  required rate of return on common equity.

6  In a market environment when market value deviates significantly from book value (lower

7  or higher), the DCF model is not well-suited for a regulated utility because its application results in

8  an overstatement or understatement, respectively, of investors' required rate of return. Investors

9  expect to achieve their required rate of return based upon dividends received and appreciation in

10  market price. My testimony shows that market prices are significantly influenced by factors other

11  than earnings per share (EPS) and dividends per share (DPS). Thus, because it is necessary to

12  use accounting proxies for growth in the DCF model, such as EPS, DPS, or their derivative,

'3  internal growth, only a portion of the full growth (price appreciation) expected by investors is

14  reflected in the "g" component of the model. I will demonstrate hypothetically on Schedule 8 of

15  Exhibit No. 7 how the application of a market-based DCF cost rate to an original cost rate base,

16  based upon a book value substantially lower than market value, deprives a utility of a reasonable

17  opportunity to experience the rate of growth expected by investors because the growth estimate

18  used in the application of the DCF model is based upon EPS or some derivative thereof. Such

19  growth proxies do not reflect the full rate of market price growth expected by investors. Market

20  prices reflect other growth factors not accounted for in the standard regulatory version of the DCF

21  model such as an increase in the market value per share due to expected increases in

22  price/earnings multiples, the possibility of merger and acquisition activity and less obvious factors

23  included in the long-range goals of investors. For these reasons, sole reliance on the DCF model

24  should be avoided. In fact, state commissions in Iowa, Indiana, Hawaii and Pennsylvania as

25  discussed in detail below, which have previously relied primarily upon the DCF, have explicitly

26  recognized this tendency of the DCF model to understate the common equity cost rate when, as

5

now, market prices significantly exceed book values.

As stated earlier, I rely upon a number of widely-used cost of common equity models as primary tools in reaching my recommendation because each provides useful data. None is theoretically superior to the others or so precise as to justify sole reliance upon it.

The results derived from each of the four models are as follows:

Table 2

|  | DCF | RP | CAPM | CEM |
|---|---|---|---|---|
| Proxy Group of Seven Water Companies | 9.0% | 13.0% | 12.1% | 11.6% |
| Proxy Group of Eight Utilities Selected On the Basis of Least Relative Distance | 10.5% | 13.0% | 11.9% | 11.4% |

After reviewing these cost rates, I conclude that common equity cost rates of 11.60% and 11.70% for each group respectively, before an adjustment to reflect the Company's greater relative business risk vis-a-vis the companies in each proxy group, are indicated based upon the application of all four models to each proxy group. After applying a business risk adjustment of 0.20% which will be discussed subsequently, my recommended common equity cost rate is 11.85%, the midpoint between the business risk adjusted common equity cost rates of 11.8% and 11.9% for each proxy group, respectively. A test of pretax interest coverage confirms that my recommended common equity cost rate of 11.85% and resultant overall cost of capital of 10.165% are reasonable, if not conservative.

## III. GENERAL PRINCIPLES

1

2  Q.  What general principles have you considered in arriving at your recommended common equity

3      cost rate of 11.85%?

4

5  A.  In unregulated industries, marketplace competition is the principal determinant establishing the

6      price of a product or service. In the case of regulated public utilities, regulation must act as a

7      substitute for marketplace competition. Consequently, marketplace data must be relied upon to

8      assure that the utility can fulfill its obligations to the public and provide adequate service at all

9      times. This requires a level of earnings sufficient to maintain the integrity of presently invested

10     capital and permit the attraction of needed new capital at a reasonable cost in competition with

11     other comparable-risk firms. These standards for a fair rate of return have been established by

12     the U.S. Supreme Court in the Hope and Bluefield cases cited previously. Consequently, in my

13     determination of a fair rate of return, I have made every effort to also evaluate data gathered from

14     the marketplace for utilities similar in risk to the Company.

15

## IV. BUSINESS RISK

16

17 Q.  Please define business risk and explain why it is important to the determination of a fair rate of

18     return?

19

20 A.  Business risk is a collective term which incorporates all of the diversifiable risks of a firm other

21     than financial risk, which will be discussed subsequently. Examples of business risk include the

22     quality of management and the regulatory environment which have a direct bearing on earnings.

23          Business risk is important to the determination of a fair rate of return because the greater

24     the level or risk, the greater the rate of return investors demand, consistent with the basis financial

25     precept of risk and return.

26

Q. Please discuss the business risks facing the water industry in general.

A. Standard & Poor's (S&P)[3] has noted that while most of the regulatory risks associated with the Safe Drinking Water Act are behind the industry, the industry still faces the risks related to replacing aging transmission and distribution systems. As S&P states[4]:

> Yet, there will always be a steady stream of rate cases to incorporate spending related to upgrading plants and pipelines. Another challenge is the possible move toward performance-based ratemaking and achieving the efficiencies necessary under this type of regulation to earn a reasonable equity return.

In addition, because the water industry is much more capital-intensive than the electric, natural gas or telephone industries, the investment required to produce a dollar of revenue is greater. Thus, the challenge to water utilities is significant.

As noted by S&P[5]:

> Additional challenges, such as limited growth prospects, regulatory lag, and low authorized returns and depreciation rates (about 2% versus around 3% for electric utilities), will continue to hamper financial performance in this highly capital-intensive business.

Lower depreciation rates, one of the principal sources of internal cash flows for all utilities, mean that water utility depreciation as a source of internally-generated cash is far less than for electric, natural gas or telephone utilities. Water utilities' assets have longer lives and, hence, longer capital recovery periods. As such, water utilities face greater risk due to inflation which results in a higher replacement cost per dollar of net plant than for other types of utilities.

Moody's[6] also notes that:

---

[3] Standard & Poor's, <u>Global Sector Review</u>, December 1999, pp. 319-322.

[4] <u>Id.</u>, p. 320.

[5] Standard & Poor's, <u>CreditWeek</u>, June 20, 1994, p. 38.

[6] Moody's Investors Service, <u>Global Credit Research, "The Water Utility Industry: Risks Rise for Last U.S. Regulated Monopoly"</u>, Special Comment, February 1998, pp. 1 and 6.

1

2    Over the next several years, the credit quality of the U.S. water utility industry as a
3    whole will be pressured by two factors:  the costs of compliance with
4    environmental legislation and of ongoing infrastructure development, and
5    expansion beyond traditional service territories.

6
7    Moody's believes that the cost of compliance with environmental mandates will be
8    more an issue for small investor-owned utilities and for municipally owned water
9    systems than for large investor-owned utilities.

10
11                                      * * *
12
13    The financial risks associated with the regulated, investor-owned water sector are
14    not as significant as in the electric utility sector, which itself has undergone a
15    wave of diversification, mergers, and acquisitions, and now faces deregulation.
16    However, future business risk will escalate as the water industry pursues
17    strategies to grow earnings and expand service and distribution systems.

18
19                                      * * *
20
21    We expect that the credit quality of the smaller investor-owned and municipal and
22    private water utilities will likely deteriorate over the next several years, reflecting
23    continued environmental compliance requirements, and higher capital
24    investments in constructing water treatment facilities, improving and replacing
25    maturing distribution and delivery infrastructure.

26

27    In view of the foregoing, it is clear that their high degree of capital intensity coupled with

28    the need for substantial infrastructure capital spending, require regulatory support in the form of

29    adequate and timely rate relief so they will be able to successfully meet the challenges they face.

30

31                                V. FINANCIAL RISK

32    Q.   Please define financial risk and explain why it is important to the determination of a fair rate of

33         return?

34

35    A.   Financial risk is the additional diversifiable risk created by the introduction of senior capital, i.e.,

36         debt and preferred stock, into the capital structure.  In other words, the higher the proportion of

37         senior capital in the capital structure, the higher the financial risk.

38         Utilities formerly were considered to have much less business risk vis-a-vis unregulated

39         enterprises, and, as a result, a larger percentage of debt capital was acceptable to investors.  In

9

1  June 1999, S&P revised its utility financial targets to create a single set of financial targets for all

2  utilities. S&P's current matrix approach to the bond rating process for utilities can be found in

3  Exhibit No. 7, Schedule 2, pages 11 and 12, while pages 1 through 9 describe the utility bond

4  rating process. As shown on page 12, S&P's revised matrix approach to utilities establishes

5  financial target ratios for ten levels of business position/profile with "1" being considered lowest

6  risk and "10" being highest risk.

7

8  Q. How can one measure the combined, diversifiable business and financial risks, i.e., investment

9  risk of an enterprise?

10

11  A. Similar bond ratings reflect similar combined business and financial risks, i.e., total risk. Although

12  the specific business or financial risks may differ between companies, the same bond rating

13  indicates that the combined risks are similar as the bond rating process reflects acknowledgment

14  of all diversifiable business and financial risks. For example, S&P expressly states that the bond

15  rating process encompasses a qualitative analysis of business and financial risks (see pages 3

16  through 9 of Schedule 2 of Exhibit No. 7. There is no perfect single proxy, such as bond rating or

17  common stock ranking, by which one can differentiate common equity risk between companies.

18  However, the bond rating provides a useful means to compare/differentiate common equity risk

19  between companies because it is the result of a thorough and comprehensive analysis of all

20  diversifiable business and financial risks, i.e., investment risk.

21  The Company's ratemaking debt ratio of 48.67% is lower than the average debt ratios of

22  the seven water companies and eight utilities, 55.96% and 61.56%, respectively, for the latest

23  year available, 1998, as shown on page 3 of Schedules 4 and 5 of Exhibit No. 7, indicating

24  somewhat less relative financial risk for the Company. However, the Company's smaller size, i.e.,

25  total permanent capital of approximately $76 million at December 31, 1998 vis-a-vis average total

26  permanent capital of approximately $898 million in 1998 for the proxy group of seven water

1  companies and approximately $5,552 million in 1998 for the proxy group of eight utilities (see

2  page 1 of Schedules 3, 4, and 5, respectively) indicates greater relative business risk because all

3  else equal, size has a bearing on risk.

5  Q.  Please explain why size has a bearing on business risk.

7  A.  Smaller companies are less capable of coping with significant events which affect sales, revenues

8  and earnings.

9  The loss of revenues from a few larger customers, for example, would have a greater effect

10  on a small company than on a much larger company with a larger customer base.  Because the

11  Company is the regulated utility to whose rate base the Commission's ultimately allowed overall

12  cost of capital and fair rate of return will be applied, the relevant risk reflected in the cost of capital

`3  must be that of the Company, including the impact of its small size on common equity cost rate.

14  Size is an important factor which affects common equity cost rate, and the Company is

15  significantly smaller than the average company in either of the  proxy groups based upon total

16  permanent investor-provided capital as shown below:

18  Table 3

| | 1998 Total Permanent Capital ($ millions) | Times Greater Than The Company |
|---|---|---|
| Proxy Group of Seven Water Companies | $897.703 (1) | 11.8x |
| Proxy Group of Eight Utilities Selected on the Basis of Least Relative Distance | 5,552.298 (2) | 73.1x |
| Consumers IL Water Co. | 75.970 (3) | |

(1)  From Schedule 4, page 1 of Exhibit No. 7.
(2)  From Schedule 5, page 1 of Exhibit No. 7.
(3)  From Schedule 3, page 1 of Exhibit No. 7.

1    Q.    Does the financial literature affirm a relationship between size and common equity cost rate?

2

3    A.    Yes. Brigham[7] states:

4

> 5    A number of researchers have observed that portfolios of small-firms have earned
> 6    consistently higher average returns than those of large-firms stocks; this is called
> 7    "small-firm effect." On the surface, it would seem to be advantageous to the small
> 8    firm to provide average returns in a stock market that are higher than those of larger
> 9    firms. In reality, it is bad news for the small firm; what *the small-firm effect means is*
> 10    *that the capital market demands higher returns on stocks of small firms than on*
> 11    *otherwise similar stocks of the large firms.* (italics added)

12

13    In addition, Ibbotson Associates[8] indicate that the size premium for micro-cap stocks on

14    average over the long-term past (1926-1999) has been 2.21%, or 221 basis points. They state[9]:

15

> 16    One of the most remarkable discoveries of modern finance is the finding of a
> 17    relationship between firm size and return. On average, small companies have
> 18    higher returns than large ones. Earlier chapters document this phenomenon for the
> 19    smallest stocks on the New York Stock Exchange (NYSE). *The relationship*
> 20    *between firm size and return cuts across the entire size of the spectrum; it is not*
> 21    *restricted to the smallest stocks.* (italics added)

22

23    In view of the foregoing, the Company's respective business risk is greater than that of the

24    average company in either the proxy group of seven water companies or the proxy group of eight

25    utilities.

26
27                              VI. CONSUMERS ILLINOIS WATER COMPANY
28

29    Q.    Have you reviewed financial data for Consumers IL?

30

31    A.    Yes.    Consumers IL provides water services to approximately 49,452 retail customers in 27

---

[7]    Eugene F. Brigham, <u>Fundamentals of Financial Management, Fifth Edition</u>, The Dryden Press, 1989, p. 623.

[8]    Ibbotson Associates, <u>Stocks, Bonds, Bills and Inflation - 2000 Yearbook</u>, p. 142.

[9]    <u>Id</u>., p. 129.

| 1 | | municipalities through seven operating divisions: Candlewick (2,390 customers), Kankakee (18,821 |
| 2 | | customers), Oak Run (2,613 customers), University Park (1,615 customers), Vermilion (17,000 |
| 3 | | customers), Willowbrook (859 customers), and Woodhaven (6,154 customers). Consumers IL is a |
| 4 | | subsidiary of Consumers Water Company. Thus, the Company's common stock is not publicly |
| 5 | | traded. |
| 6 | | As shown on page 1 of Schedule 3 of Exhibit No. 7, during the five-year period ending 1998, |
| 7 | | the achieved average earnings rate on book common equity for Consumers IL was 7.5%, ranging |
| 8 | | between 5.6% in 1996 to 8.4% in 1997. |
| 9 | | |
| 10 | | VII. PROXY GROUPS |
| 11 | Q. | Please explain how you chose the proxy group of seven water companies. |
| 12 | | |
| 13 | A. | The basis of selection for the proxy group of seven water companies were those companies that |
| 14 | | meet the following criteria: 1) they are included in the Water Company Group of C.A. Turner Public |
| 15 | | Utility Reports; 2) they are included in S&P's Compustat Services, Inc., PC Plus Database in order to |
| 16 | | insure comparability of data for all companies; 3) they are assigned an S.I.C. Code of 4941 (Water |
| 17 | | Supply) by S&P's Compustat Services, Inc.; 4) they have common stock which is actively traded; 5) |
| 18 | | they have I/B/E/S projected growth rates in earnings per share; and 6) they do not operate in |
| 19 | | California because of supply problems which are unique to California. Seven companies met all of |
| 20 | | these criteria. |
| 21 | | |
| 22 | Q. | Please describe Schedule 4. |
| 23 | | |
| 24 | A. | Schedule 4 contains comparative capitalization and financial statistics for the seven water |
| 25 | | companies for the years 1994 through 1998. The schedule consists of two pages. Page 1 contains |
| 26 | | a summary of the comparative data for the years 1994-1998. Page 2 contains notes relevant to |

1     page 1, as well as the basis of selection of the individual companies in the proxy group.

2     During the five-year period ending 1998, the achieved average earnings rate on book

3     common equity for this group ranged between 10.2% in 1995 and 11.2% in 1998, and averaged

4     10.6%. The five-year average market/book ratio ending 1998 was 154.6%. The five-year average

5     ending 1998 common equity ratio based on total investor-provided capital was 40.6%, while the five-

6     year average dividend payout ratio was 77.0%.

7     Coverage of interest charges, excluding all AFUDC from income available to pay such

8     charges, before income taxes for the years 1994-1998 ranged between 2.71 and 2.84 times and

9     averaged 2.76 times during the five-year period.

10

11   Q.   Please explain how you chose the proxy group of eight utilities selected on the basis of least relative

12     distance.

13

14   A.   Investment risk is the sum of business and financial risks. I chose to examine eight operating /

15     financial ratios that I believe provide comprehensive insight into the business and financial risks of

16     utilities, including water companies. I based my analyses upon the average results for the years

17     1996, 1997, and 1998. As the benchmark I utilized, for Consumers IL, the three-year average for

18     each of eight ratios which are described as follows: 1) pretax interest coverage; 2) common equity

19     ratio; 3) fixed asset turnover; 4) the percentage of allowance for funds used during construction

20     (AFUDC) to net income; 5) cash flow as a percentage of permanent capitalization; 6) the ratio of net

21     cash flow to expenditures; 7) interest coverage based on funds flow; and 8) operating earnings

22     stability.

23     I employed the Company's ratios as described above in order to select companies

24     comparable in risk to Consumers IL. I began with all electric, gas, combination electric and gas and

25     water utilities for which data are available in the Standard & Poor's Compustat Services, Inc., PC

26     Plus Database. I calculated the three-year average ratios for 137 electric, gas, combination electric

14

| 1 | and gas and water utilities and rank-ordered them in terms of the least relative distance to |
| 2 | Consumers IL. The sum of distance was obtained by calculating the squared distances between the |
| 3 | eight operating / financial ratios of each firm and those of the Company, summing those squared |
| 4 | distances, and then by calculating the square root of the summation. Eight utilities were selected as |
| 5 | having the lowest sum of distance from Consumers IL. Consequently, these companies, based |
| 6 | upon the eight operating / financial ratios, are the closest in risk to Consumers IL. Their financial |
| 7 | profile is summarized in Schedule 5. |
| 8 | |
| 9 | Q. Please describe Schedule 5. |
| 10 | |
| 11 | A. Schedule 5 contains comparative capitalization and financial statistics for the eight utilities selected |
| 12 | on the basis of least relative distance for the years 1994 through 1998. The schedule consists of |
| 13 | five pages. Page 1 contains a summary of the comparative data for the years 1994 - 1998. Page 2 |
| 14 | contains notes relevant to page 1, as well as the basis of selection of the individual companies in the |
| 15 | proxy group. Page 3 contains the capital structure ratios based upon total capital (including short- |
| 16 | term debt) by company and on average for the proxy group for the years 1994 - 1998. Page 4 |
| 17 | contains the eight ratios for Consumers IL and the eight utilities which have the lowest sum of |
| 18 | distance and thus are closest in risk to Consumers IL. Page 5 contains notes relevant to page 4. |
| 19 | During the five-year period ending 1998, the achieved average earnings rate on book |
| 20 | common equity for this group ranged between 10.5% in 1998 and 12.8% in 1994, and averaged |
| 21 | 11.3%. The five-year average market / book ratio ending 1998 was 157.9%. The five-year average |
| 22 | ending 1998 common equity ratio based on total investor-provided capital was 35.4%, while the five- |
| 23 | year average dividend payout ratio was 76.9%. |
| 24 | Coverage of interest charges, excluding all AFUDC from income available to pay such |
| 25 | charges, before incomes taxes for the years 1994 - 1998 ranged between 2.35 and 2.54 times and |
| 26 | averaged 2.46 times during the five-year period. |

1

2                           VIII.  COMMON EQUITY COST RATE MODELS

3                              A.  The Efficient Market Hypothesis (EMH)

4       Q.    Please describe the conceptual basis of the EMH.

5

6       A.    The Efficient Market Hypothesis (EMH), which is the foundation of modern investment theory, was

7             pioneered by Eugene F. Fama[10] in 1970.  An efficient market is one in which security prices reflect

8             all relevant information all the time.   This implies that prices adjust instantaneously to new

9             information, thus reflecting the intrinsic fundamental economic value of a security.[11]

10                 The three forms of the EMH are:

11
12                 A.  The "weak" form which asserts that all past market prices and data are fully reflected in
13                     securities prices, i.e., technical analysis cannot enable an investor to "outperform the
14                     market".
15
6                  B.  The "semistrong" form which asserts that all publicly available information is fully
17                     reflected in securities prices, i.e., fundamental analysis cannot enable an investor to
18                     "outperform the market".
19
20                 C.  The "strong" form which asserts that all information, both public and private, is fully
21                     reflected in securities prices, i.e., even insider information cannot enable an investor to
22                     "outperform the market".
23

24                 The "semistrong" form of the EMH is generally held to be true because the use of insider

25            information often enables investors to "outperform the market" and earn excessive returns.   The

26            generally-accepted "semistrong" form of the EMH means that all perceived risks are taken into

27            account by investors in the prices the pay for securities.  Investors are aware of all publicly-available

28            information, including bond ratings; discussions about companies by bond rating agencies and

29            investment analysts as well as the various cost of common equity methodologies (models)

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[10]   Fama, Eugene F., "Efficient Capital Markets: A Review of Theory and Empirical Work". Journal of
       Finance, May 1970, pp. 383-417.

[11]   Morin, Roger A., Regulatory Finance - Utilities' Cost of Capital. Public Utility Reports, Inc., Arlington,
       VA, 1994, p. 136.

1    discussed in the financial literature. This means that no single common equity cost rate model

2    should be relied upon in determining a cost rate of common equity and that the results of multiple

3    cost of common equity models should be taken into account.

4

5                          B. Discounted Cash Flow Model (DCF)

6                             1. Theoretical Basis

7    Q.   What is the theoretical basis of the DCF model?

8

9    A.   The theory of the DCF model is that the present value of an expected future stream of net cash

10        flows during the investment holding period can be determined by discounting the cash flows at the

11        cost of capital, or the capitalization rate. DCF theory suggests that an investor buys a stock for an

12        expected total return rate which is expected to be derived from cash flows received in the form of

13        dividends plus appreciation in market price (the expected growth rate). Thus, the dividend yield on

14        market price plus a growth rate equals the capitalization rate, i.e., the total return rate expected by

15        investors.

16

17

18   Q.   Please comment on the applicability of the DCF model in establishing a cost of common equity for

19        the Company.

20

21   A.   The extent to which the DCF is relied upon, if at all, should depend upon the extent to which the cost

22        rate results differ from those resulting from the use of other cost of common equity models because

23        the DCF model has a tendency to mis-specify investors' required return rate when the market value

24        of common stock differs significantly from its book value. Market values and book values of common

25        stocks are seldom at unity. The market-based DCF model will result in a total annual dollar return

6         on book common equity equal to the total annual dollar return expected by investors only when

17